

48-Port 10/100/1000Mbps with 4 Shared SFP Managed Security Switch



High-Density / Cost-effective / Telecom class Gigabit solution for Enterprise backbone and Data Center Networking

The PLANET WGSW-48040 is a High-Density, Rack-mountable, L2/L4 Full Managed Gigabit Switch. Since Gigabit network interface had become the basic equipment and requirement of Enterprise and Network Servers, with 96Gbps switching fabric, the WGSW-48040 can handle extremely large amounts of data in a secure topology linking to a backbone or high capacity servers. The powerful QoS and Network Security features make WGSW-48040 to meets the needs of effective data traffic control for both ISP and Enterprise, such VoIP, video streaming and multicast application.

High Performance

The PLANET WGSW-48040 provides 48 10/100/1000Mbps Gigabit Ethernet ports with 4 shared Gigabit SFP slots. It boasts a high performance switch architecture that is capable of providing non-blocking switch fabric and wire-speed throughput as high as 96Gbps, which greatly simplifies the tasks of upgrading the LAN for catering to increase bandwidth demands.

Robust Layer 2 Features

The WGSW-48040 can be programmed for basic switch management functions such as Port speed configuration, Port aggregation, VLAN, Spanning Tree protocol, QoS, bandwidth control and IGMP Snooping. The WGSW-48040 provides 802.1Q Tagged VLAN. The VLAN groups allowed on the WGSW-48040 will be maximally up to 255. Via supporting port Link Aggregation, the WGSW-48040 allows the operation of a high-speed trunk combining multiple ports, up to eight groups of maximum 8-ports for trunking, and it supports fail-over as well.

Excellent Traffic Control

PLANET WGSW-48040 is loaded with powerful traffic management and QoS features to enhance services offered by telecoms. The functionality includes QoS features such as wire-speed Layer 4 traffic classifiers and bandwidth limiting that are particular useful for multi-tenant unit, multi business unit, Telco, or Network Service Provide applications. It also empowers the enterprises to take full advantages of the limited network resources and guarantees the best performance at VoIP and Video conferencing transmission.

Efficient Management

For efficient management, the WGSW-48040 Managed Ethernet Switch is equipped with console, WEB and SNMP management interfaces. With its built-in Web-based management, the PLANET WGSW-48040 offers an easy-to-use, platform-independent management and configuration facility. The PLANET WGSW-48040 supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software. For text-based management, WGSW-48040 can also be accessed via Telnet and the console port. For secure remote management, the WGSW-48040 supports SSL and SSH connection which encrypts the packet content at each session.

Powerful Security

PLANET WGSW-48040 offers comprehensive Access Control List (ACL) for enforcing security to the edge. Its protection mechanisms comprise port-based 802.1x user and device authentication. The port-security is effective in limit the numbers of clients pass through, so that network administrators can now construct highly secured corporate networks with time and effort considerably less than before.

Flexibility and Extension Solution

The four mini-GBIC slots are compatible with 1000Base-SX/LX and WDM SFP (Small Factor Pluggable) fiber-optic modules. The distance can be extended from 550 meters (Multi-Mode fiber) up to above 10/50/70/120 kilometers (Single-Mode fiber or WDM fiber). They are well suited for using within the enterprise data centers and distributions.

KEY FEATURE

Physical Port

- 48-Port 10/100/1000Base-T Gigabit Ethernet RJ-45
- 4 SFP slots, shared with Port-23, Port-24, Port 47 and Port-48
- Console interface for Switch basic management and setup

Layer 2 Features

- Complies with the IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z Gigabit Ethernet standard
- Supports Auto-negotiation and Half-Duplex / Full-Duplex modes for all 10Base-T/100Base-TX and 1000Base-T ports.
- Auto-MDI / MDI-X detection for each RJ-45 port
- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)
- High performance of Store-and-Forward architecture, broadcast storm control and runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- 8K MAC address table, automatic source address learning and ageing
- 12Mbit embedded memory for packet buffers
- Supports IEEE 802.1Q Tagged based VLAN
- Private VLAN Edge (PVE) supported
- GVRP protocol for VLAN Management
- Supports up to 8 Trunk groups, and each trunk can be up to maximum 8 port with 1.6Gbps bandwidth (Duplex Mode)
- IEEE 802.1d, IEEE 802.1w, classic Spanning Tree Algorithm or Rapid Spanning Tree support
- Supports the IEEE 802.1s specification for multiple spanning trees on a single port (spanning tree by VLAN)
- Port Mirroring to monitor the incoming or outgoing traffic on a particular port

Quality of Service

- 4 priority queues on all switch ports
- Supports for strict priority and Weighted Round Robin (WRR) CoS policies
- Supports QoS and bandwidth control on each port
- Traffic-policing policies on the switch port

Multicast

- Supports IGMP Snooping v1 and v2

Security

- IEEE 802.1x Port-Based Authentication
- IP-Based Access Control List (ACL)
- MAC-Based Access Control List
- Port Security

Management

- WEB-based, Telnet, Console Command Line management
- SSH (Secure Shell), SSL
- Accesses through SNMPv1, v2c and v3 security Set and Gets requests
- Four groups (history, statistics, alarms, and events) of embedded remote monitoring (RMON) agents for network monitoring and traffic analysis
- Built-in Trivial File Transfer Protocol (TFTP) client
- Virtual Cable Test (VCT) technology provides the mechanism to detect and report potential cabling issues, such as cable opens, cable shorts, etc. on Copper Links

SPECIFICATION

Product **48-Port 10/100/1000Mbps with 4 Shared SFP Managed Security Switch**

| | | |
|----------------------------|---|----------------------------|
| Model | WGSW-48040 | |
| Hardware Specification | | |
| Copper Ports | 48 10/100/1000Base-T RJ-45 Auto-MDI / MDI-X ports | |
| SFP / mini-GBIC Slots | 4 SFP interfaces, shared with Port-23, Port-24, Port-47 and Port-48 | |
| Switch Architecture | Store-and-Forward | |
| Switch Fabric | 96Gbps / non-blocking | |
| Switch Throughput | 71.4Mpps | |
| Address Table | 8K entries | |
| Share Data Buffer | 12 Mbits | |
| Flow Control | Back pressure for Half-Duplex IEEE 802.3x Pause Frame for Full-Duplex | |
| Jumbo Frame | 9K bytes | |
| LED | Power, Link / Act per port | |
| Layer 2 Function | | |
| Management Interface | Console, Telnet, SSH, Web Browser, SSL, SNMPv1, v2c and v3 | |
| Port Configuration | Port disable / enable. Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow Control disable / enable. Bandwidth control on each port | |
| Port Status | Display each port's speed duplex mode, link status, and Flow control status. Auto negotiation status, trunk status | |
| VLAN | 802.1Q Tagged Based VLAN, up to 255 VLAN groups | |
| Link Aggregation | Supports 8 groups of 8-Port trunk, IEEE 802.3ad LACP | |
| QoS | Traffic classification based on Port Number, 802.1p priority, DSCP / TOS field in IP Packet | |
| IGMP Snooping | IGMP (v1 / v2) Snooping, up to 32 multicast Groups | |
| Access Control List | IP-Based ACL / MAC-Based ACL, Up to 256 entries | |
| SNMP MIBs | RFC-1213 MIB-II RFC-2863 Interface MIB RFC-2665 EtherLike MIB RFC-1493 Bridge MIB RFC-2674 Extended Bridge MIB RFC-2819 RMON MIB (Group 1, 2, 3 and 9) RFC-2737 Entity MIB RFC-2618 RADIUS Client MIB | |
| Standards Conformance | | |
| Regulation Compliance | FCC Part 15 Class A, CE | |
| Standards Compliance | IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3z Gigabit SX / LX IEEE 802.3ab Gigabit 1000T IEEE 802.3x Flow Control and Back pressure IEEE 802.3ad Port trunk with LACP IEEE 802.1d Spanning tree protocol IEEE 802.1w Rapid spanning tree protocol IEEE 802.1p Class of service IEEE 802.1Q VLAN Tagging IEEE 802.1x Port Authentication Network Control IEEE 802.1s Multiple Spanning Tree protocol | |
| Physical Specifications | | |
| Dimensions (W x H x D) | 430 x 350 x 44.5 mm, 1U height | |
| Weight | 3.5 KG | |
| Environment Specifications | | |
| Operating | Temperature | 0°C ~ 50 Degree C |
| | Relative Humidity | 20% ~ 85% (non-condensing) |
| Storage | Temperature | -40°C ~ 70 Degree C |
| | Relative Humidity | 20% ~ 90% (non-condensing) |

APPLICATIONS

Backbone Switch

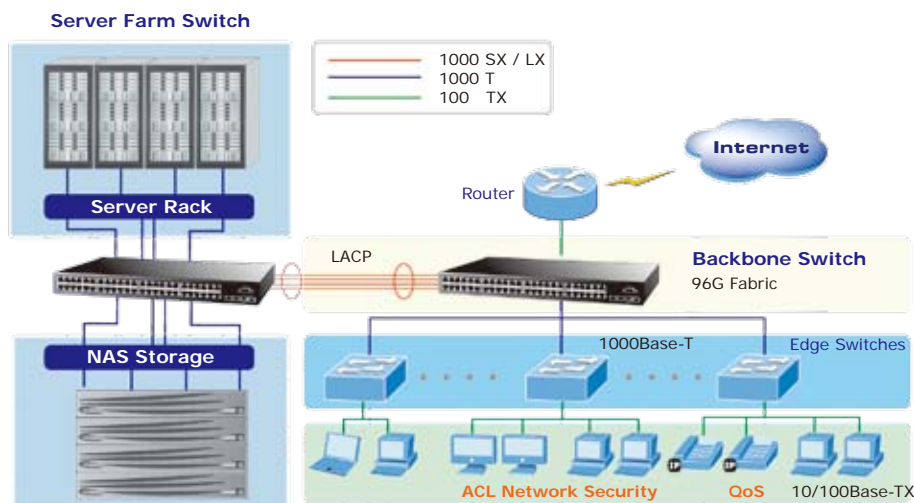
With up to 96 Gigabits per second of non-blocking switch fabric and 48-Port high density design, the WGSW-48040 can easily provide the high bandwidth required both now and future. It can easily provide a local, high bandwidth, and Gigabit Ethernet network for backbone of enterprises or Telecoms. With the four SFP ports, the WGSW-48040 provides the uplink to the edge network through Gigabit Ethernet LX/SX SFP modules.

Server Farm Switch

Gigabit Ethernet supported had become a basic equipment of Enterprises and Network servers. The WGSW-48040 provides up to 48 Gigabit Ethernet ports. It is ideal to be used as a server farm switch connecting servers. With its port trunking function, an 8GB fat pipe is provided for connecting to the backbone if required.

Department Security and QoS Switch

With the security and QoS features, it improves the network to be efficiency and protects the network clients. With the four SFP ports, the WGSW-48040 provides the uplink to the backbone network through Gigabit Ethernet LX/SX SFP modules. With the security, Multicast IGMP Snooping and QoS features, it improves the network's efficiency and protects the network clients.



ORDERING INFORMATION

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|-------------------|---|
| WGSW-48040 | 48-Port 10/100/1000Mbps with 4 Shared SFP Managed Security Switch |
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RELATIVE PRODUCT

| | |
|-------------------|---|
| WGSW-24020 | 24-Port 10/100/1000Mbps with 2 Shared SFP Managed Security Switch |
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AVAILABLE MODULES

| | |
|-----------------|--|
| MGB-GT | SFP-Port 1000Base-T Module |
| MGB-SX | SFP-Port 1000Base-SX mini-GBIC module |
| MGB-LX | SFP-Port 1000Base-LX mini-GBIC module |
| MGB-L30 | SFP-Port 1000Base-LX mini-GBIC module-30km |
| MGB-L50 | SFP-Port 1000Base-LX mini-GBIC module-50km |
| MGB-L70 | SFP-Port 1000Base-LX mini-GBIC module-70km |
| MGB-L120 | SFP-Port 1000Base-LX mini-GBIC module-120km |
| MGB-LA10 | SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-10km |
| MGB-LB10 | SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-10km |
| MGB-LA20 | SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-20km |
| MGB-LB20 | SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-20km |
| MGB-LA40 | SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-40km |
| MGB-LB40 | SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-40km |